DOCUMENT RESUME

ED 109 378 CE 004 211

AUTHOR Finch, Curtis R.; Hamilton, James B.
TITLE Competency-Based Instruction for Vocational Teachers: Current Status and Future Prospects.
PUB DATE Mar 75
NOTE 15p.; Presented at the Southern Agricultural Education Conference (Williamsburg, Virginia, March, 1975); For related documents, see CE 004 210 and CE 004 131

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Educational Assessment; Educational History; Educational Programs; Educational Strategies; *Performance Based Teacher Education; *Program Development; Speeches; *Teacher Education; Teacher Education Curriculum; Teacher Programs; Teaching Methods; *Vocational Education Teachers

ABSTRACT

The performance of teachers is generally assumed to be a function of the quality of their own preparation. Unfortunately, traditional methods and procedures may not permit teacher educators to attain the level of effectiveness to which they aspire. One of the alternatives to traditional practices is competency-based teacher education (CBTE). The five elements that appear to distinguish CBTE from other programs relate to: student competencies; criteria for assessing competencies; assessment of the student's competency; the student's rate of progress; and the intention of the instructional program. CBTE appears to be under strong consideration by a number of States and their respective colleges and universities; however, vocational teacher educators are somewhat slower than other groups with regard to setting up CBTE programs. Current indications are that a number of vocational teacher education institutions are designing and implementing CBTE programs. In plotting the future prospects for CBTE, the following areas seem to surface as being of primary import: idealistic versus realistic goals, certification, program, and long range impact. (Author)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED109378

MAY 09 1975

COMPETENCY-BASED INSTRUCTION FOR VOCATIONAL TEACHERS: CURRENT STATUS AND FUTURE PROSPECTS

Curtis R. Finch
Associate Professor and Program Leader
General Vocational and Technical Education
Division of Vocational and Technical Education
Virginia Polytechnic Institute and State University

James B. Hamilton
Director, Performance-Based Curricula Program
Center for Vocational Education
Ohio State University

Presentation made at the Southern Agricultural Education Conference
Williamsburg, Virginia
March, 1975

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CE004211

COMPETENCY-BASED INSTRUCTION FOR VOCATIONAL TEACHERS: CURRENT STATUS AND FUTURE PROSPECTS

> "It may be necessary to create entirely new norms or forms of teacher preparation, including the creation of entirely new types of institutions, to insure that vocational teacher preparation will not operate at the margins of technical competency" (Swanson, 1974)

Teacher educators have the primary responsibility for preparing and upgrading education professionals. The performance of teachers--their competency in stimulating and facilitating the growth of concepts, habits, skills, and attitudes related to successful career development of students--is generally assumed to be a function of the quality of their own preparation. Unfortunately, according to some teacher educator leadership, traditional methods and procedures may not permit teacher educators to attain the level of effectiveness to which they aspire.

Need for Reform in Teacher Education

Although teacher educators espouse the need for developing vocational curricula based upon students' potential job requirements, their own courses may not be based upon the teacher's actual job requirements. Although these teacher educators may emphasize that more attention be given to individualization of instruction for vocational students, their own classes are typically conducted in a lock-step manner. Pre-service and inservice teachers are often told that they should identify specific objectives and should plan learning experiences which relate to these objectives while the courses they themselves are enrolled in do not reflect this kind of analytical planning. Finally, although evaluation of tangible performance is often mentioned as being important in secondary and post-secondary occupational education, the teacher educator all too often focuses on purely academic assessment (e.g., term paper or essay test) in his/her own courses.

The future of vocational teacher education is essentially no different from

that of general teacher education. Increased emphasis on systematic curriculum development is necessary to insure that more relevant vocational teacher education programs evolve. Traditional practices need to be examined in light of more systematic alternatives to professional development, approaches which may have the power to create more relevant instructional environments.

One of these alternatives is competency-based teacher education (CBTE). CBTE has come on the scene as a most exciting and controversial movement which should not be taken lightly. Federal funding, state mandates and support by numerous professional groups have indicated that CBTE may be around for quite some time and should receive an in-depth examination by each person who prepares vocational teachers.

Characteristics of CBTE

What then are the parameters of competency-based teacher education? The statement published by AACTE in 1971 provides a reasonable set of statements in this regard (Elam, 1971). This AACTE publication specifies certain elements that are considered generic to any program that may be defined as being performance-based by the AACTE Committee on Performance-Based Teacher Education. The five elements that appear to distinguish CBTE from other programs are:

1. Competencies (knowledge, skills, behaviors) to be demonstrated by the student are:
   a. derived from explicit conceptions of teacher roles,
   b. stated so as to make possible assessment of a student's behavior in relation to specific competencies, and
   c. made public in advance.
2. Criteria to be employed in assessing competencies are:
   a. based upon, and in harmony with, specified competencies,
   b. explicit in stating expected levels of mastery under specified conditions, and

c. made public in advance.

3. Assessment of the student's competency:
   a. uses his/her performance as the primary source of evidence,
   b. takes into account evidence of the student's knowledge relevant to planning for, analyzing, interpreting, or evaluating situations or behavior, and
   c. strives for objectivity.
4. The student's rate of progress through the program is determined by demonstrated competency rather than by time or course completion.
5. The instructional program is intended to facilitate the development and evaluation of the student's achievement of competencies specified.

Several additional elements are related and desirable characteristics of CBTE programs. These include: (1) instruction is individualized and personalized; (2) the learning experience of the individual is guided by feedback; (3) the program as a whole is systematic: (4) emphasis is on exit, not on entrance requirements; (5) instruction is modularized; (6) the student is held accountable for performance. Although these elements are implied aspects of CBTE, many have been associated with sound instructional practice for some time.

As indicated in Table 1, CBTE appears to be different from traditional teacher education in terms of several basic characteristics: explication of competencies to be attained, assessment criteria and procedures, student orientation and instructional intent. And it is these differences which seem to make CBTE a much discussed and controversial movement.

Current Status of CBTE: Teacher Education in General

One who is examining CBTE may well ask what its impact has been to date. Is CBTE really being seriously considered by teacher education institutions across the nation or is it just another bit of educational gimickery? Although the fact has

TABLE 1

Comparison of a "Typical" Traditional and a "Typical" PBTE Program

Characteristics	Traditional Program	PBTE Program[1]
1. Competencies to be demonstrated by the student are:	· derived from committee consensus · stated in general terms · seldom made public	· derived explicit concepts of teacher roles · stated so that competence may be assessed · made public in advance
2. Criteria to be employed in assessing competencies are:	· based upon general program objectives · general in stating mastery levels · seldom made public	· based upon specified competencies · explicit in stating levels of mastery under specified conditions · made public in advance
3. Assessment of the student's competency	· uses his course grades as evidence of competence · may include his performance as well as knowledge · may focus on objectivity	· uses his performance as evidence of competence · takes student knowledge as it relates to performance into account · strives for objectivity
4. Student rate of progress through program is determined by:	· time of course completion	· demonstrated competency
5. Instructional program is intended to:	· facilitate student achievement of certain general program objectives	· facilitate development and evaluation of student achievement of specified competencies

[1] from Elam, 1971

not been widely publicized, CBTE appears to be under strong consideration by a number of states and their respective colleges and universities. As of late 1972, for example, 17 states had instituted legislative and/or administrative support for CBTE. Fourteen others were actively working on new certification standards and approaches which focus on CBTE. Results of a questionnaire sent out to teacher education institutions at about that time revealed the following: 125 indicated that they had programs which could be characterized by Elam's definition, 366 indicated that they were in the developmental stage and planned to establish a PBTE program, while 228 indicated that they were not involved in PBTE (Schmieder, 1973). It should be noted that, at that time, most CBTE programs were of the "alternative" or "parallel" type rather than total-all out efforts such as the program type exemplified by Weber State in Utah (Burke, 1972).

More recent information on the CBTE movement reflects increased involvement by states and teacher education institutions (Schmieder, 1974). All states indicated that they were at least studying the concept while a large number had mandates or resolutions specifying competency-based certification. Twenty two states had either mandated or passed resolutions regarding implementation of CBTE and/or competency-based certification. With regard to these more recent developments, a brief comment should be made about situations in Michigan and Texas. In 1971, the Michigan State Board adopted a motion to develop a competency-based certification system which would replace the present certification requirements for program completion based upon college credits. In 1974, however, the position was modified to that of facilitating development of CBTE programs as opposed to certification and mandating CBTE. Although Texas took an early lead with State Board adoption of standards which included a fully operational CBTE program by 1977, these were modified by a January, 1974 Attorney General's ruling that "competency-based education may not be singularly identified as a preparation process but as an operational alternative."

In addition to the concern about and support for CBTE expressed by various states

and teacher education institutions, many professional groups have been supportive of the CBTE movement. Among these are the American Association of Colleges for Teacher Education, The National Consortium on Performance-Based Education, The Multi-States Consortium on Performance-Based Teacher Education, The National Consortium of CBE Centers, National Competency-Based Education Centers, The Southern Consortium, the National Center for the Improvement of Educational Systems/Teacher Corps and the American Vocational Association. These groups, as well as others, have focused on facilitating growth of the CBTE movement and are accomplishing this in a variety of ways.

Current Status of CBTE: Vocational Teacher Education

As one would expect, the growth of CBTE for vocational teachers has tended to parallel that of general education. However, there are several distinct differences. The U.S.O.E. funded Elementary Models Projects which served as a catalyst for CBTE at the elementary teacher level, (Houston and Howsam, 1972), had little relevance for vocational and technical teacher education. Thus, vocational teacher educators were somewhat slower than other groups with regard to setting up CBTE programs. In fact, much of the current effort in CBTE is at least, in part, based upon research completed at the Ohio State Center (Cotrell and others, 1972). This data base seems to have served as a starting point for a number of CBTE programs to meet the needs of vocational teachers. For example, Michigan, Texas, Oregon, Illinois, and Mississippi utilized the competencies identified by Cotrell and others as a basis for their own curriculum research and development efforts. In many cases, competencies were verified at state and regional levels and then programs devised which built upon these competencies.

Current indications are that a number of vocational teacher education institutions are designing and implementing CBTE programs. In fact, several vocational teacher education departments are leading the way in this regard (eg. Temple University, University of Nebraska, Wayne State University, University of Minnesota).

Response to a recent request by the Ohio State Center for state directors to nominate institutions to participate in the Center's advanced testing of performance-based vocational teacher education curricula resulted in responses from 37 states and nominations of some 70 institutions. Letters requesting inclusion in the testing were received from 40 of these institutions.

Other indicators of CBTE movement strength in vocational teacher education are the results from a recent market survey which the Ohio State Center conducted relative to projected demand for use of its' performance-based curricular materials. Over three-fourths of the 237 respondents indicated that they had competency-based teacher education programs in operation or in the planning stage. The listing provided as Appendix A gives some indication of efforts put forth by vocational teacher educators across the country. Although this list is not exhaustive, it should serve as a starting point for those who wish to gather information about CBTE design and implementation related to vocational teacher education.

For the benefit of those who are considering CBTE program implementation, it may be meaningful to provide brief descriptions of a few successful programs. These are somewhat representative of the work which has been going on across the country to date.

At the University of Minnesota, the preservice "Teaching Methods in Agriculture" is competency-based, individualized and modularized. This program consists of 29 modules, 23 of which must be satisfactorily completed prior to student teaching. One learning laboratory is provided for group discussions and simulated teaching with peers - while another is equipped with carrels for individual study, listening and viewing. Facilities are also provided for small group discussions and viewing and critiquing of student video tapes as well as tapes of master teachers. Student performance is assessed under simulated teaching conditions prior to student teaching and also during student teaching experiences.

University of Nebraska's "Preparation By Prescription for VO-AG Teachers"

focuses on the development of seventy-four teaching behaviors needed by first year teachers of vocational agriculture. To provide students with the ability to perform these behaviors, 30 challenges (learning tasks with assignment sheets and audio-tape discussions) were developed. During the first 5 weeks (on campus) of the "professional semester" students pursue demonstration, writing, explanation and performance tasks on an individualized basis. Each student views "Master Teacher" video tape situations and conducts at least 10-12 critiqued micro-teaching sessions prior to the 6 weeks of student teaching. Following student teaching, an intensive 5 week class-laboratory-workshop Program Planning Course allows each student to proceed at his own pace through 16 challenges (53 objectives) involving audio-tape programmed instruction. A 24-carrel language laboratory provides students with opportunities to listen and complete assignments, and teacher educators with an opportunity for individual and small group instruction. Each assignment is graded and unsatisfactory performances are redone until judged satisfactory.

Several other CBTE programs which do not focus as specifically on agricultural education are worthy of mention. Faculty at Wayne State University have established an across-the-board CBTE program in a typical four year vocational teacher education context. The Wayne State program is most comprehensive and has been operational for several years now (Cook and Richey, 1975).

At Temple University, a CBTE program has been implemented to meet the inservice needs of trade and industrial teachers. Perhaps the most unique aspect of Temple's program is that it is entirely field-based. That is, teachers may develop competencies in the schools rather than at the University (Adamsky and Cotrell, 1975).

University of Michigan's CBTE program is designed primarily for aspiring occupational teachers who transfer from community colleges. The use of competencies enables students to complete baccalaureate degree requirements in a minimum amount of time (Vogler, 1975).

Future Prospects for CBTE

Based upon the foregoing, one might say "CBTE has come a long way, baby." But what does the future hold in store for this movement? Will it grow and prosper or will it merely die on the educational vine? Will it result in significant improvement to vocational teacher education or will it be classed as another one of those short-lived educational panaceas? (Bailey, 1972)

In plotting the future prospects for CBTE, it was felt most useful to deal with several key areas. Based upon personal experiences, discussions with those who are deeply emersed in CBTE, and professional hindsight, the following areas seem to surface as being of primary import: idealistic versus realistic goals, certification, program design, and long range impact.

Idealistic Versus Realistic Goals. Although one might believe that all institutions implementing CBTE would try to meet Elam's (1971) guidelines, this may be far from the truth. Because of mandates and popularity of the movement, many teacher education programs are undergoing name changes and instituting superficial modifications without fully implementing CBTE concepts. If this continues, it could spell disaster for the CBTE movement as its' critics would be able to show that CBTE does not make a difference in teacher performance.

Taking a realistic perspective, it appears that only a percentage of the CBTE programs implemented across the country will meet all of the standards outlined by Elam. Some will either offer CBTE as an alternative to the traditional program or implement it without a field center component.

Colleges where CBTE was instituted in haste are now questioning the wiseness of this decision. It seems that successful CBTE programs of the future will be implemented on an incremental basis. Changes in faculty roles and student roles, and resources to implement CBTE require careful planning and the opportunity for a smooth transition (Finch and Hamilton, 1975).

Certification. Even though there seems to be a trend toward an increase in

numbers of states mandating CBTE and competency-based certification, this trend may be short-lived. If the Texas and Michigan examples tell us anything, states will be placing increased emphasis on CBTE as an alternative to certification and facilitating the development of CBTE programs. The questionable legality of competency-based certification will most likely force states to tone down their various mandates and resolutions in this area.

Program Design. In order to implement CBTE concepts, programs will need to become more field-centered and more individualized. Strong consideration should be given to the use of differentiated staffing concepts and the employment of joint decision making bodies which include teacher education institutions, teacher groups, public school administrators and supervisors. If programs move forward in these areas, the likelihood of implementing meaningful CBTE will be greatly increased.

The availability of validated CBTE materials should allow teacher education institutions to focus on implementation instead of merely content development. Modules developed by the Ohio State Center which are currently undergoing advanced testing should enable faculty to design CBTE programs that meet their particular needs (Finch and others, 1974).

Long Range Impact. The long range impact of CBTE will most likely be in several areas. First, greater attention will be given to competence in all areas of vocational education. As students complete CBTE programs they will have been exposed to a new set of experiences. And, hopefully, these experiences with competency-based instruction will impact on their own teaching. The cumulative effect of CBTE programs on students should be extremely great in terms of involvement with relevant instruction, individualization and learning for mastery.

Second, the CBTE movement should result in less emphasis being placed on time-based criteria (semesters, quarters, etc.) and more emphasis on achievement of relevant outcomes. In fact, students who have taken some CBTE may demand that this

approach be instituted throughout their programs.

Finally, it appears that higher quality teaching will be provided at all levels. The focus on measurable outcomes and the ultimate criterion, vocational student behavior, should provide teachers and teacher educators with a more realistic target. Hopefully, the result will eventually be measured in terms of success former vocational students have in the work world!

References

Adamsky, Richard A. and Cotrell, Calvin J. "Program VITAL: A Futuristic In-service Model for Vocational Teacher Education." Journal of Industrial Teacher Education. Summer, 1975.

Bailey, Joe A. "The Rise,Decline and Fall of Educational Panaceas." NSPI Journal. Vol. X, No. 7. 1972, pp. 5-14.

Burke, Casell. The Individualized Competency-Based System of Teacher Education at Weber State College. Washington, D.C.: AACTE, March, 1972.

Cook, Fred S. and Richey, Rita C. "A Competency-Based Program for Preparing Vocational Teachers." Journal of Industrial Teacher Education. Summer, 1975.

Cotrell, Calvin; Chase, Shirley; and Molnar, Marilyn. Model Curricula for Vocational and Technical Teacher Education: Report No. V - General Objectives, Set II. Columbus, Ohio: Center for Vocational and Technical Education, Ohio State University, 1972.

Elam, Stanley. Performance-Based Teacher Education, What is the State of the Art? Washington, D.C.: AACTE, December, 1971.

Finch, Curtis R. and Hamilton, James B. "Issues in the Implementation of Performance/Competency-Based Teacher Education Programs." Journal of Industrial Teacher Education. Summer, 1975.

Finch, Curtis R., Hamilton, James B. and Andreyka, Robert E. "Performance-Based Curricula for Vocational Teachers." Presentation made at the Performance-Based Vocational and Adult Teacher Education Conference, Tampa, Florida, May, 1974.

Houston, W. Robert and Howsam, Robert W. Competency-Based Teacher Education. Chicago: Science Research Associates, 1972.

Schmieder, Allen A. Competency-Based Education: The State of the Scene. Washington, D.C.: AACTE, February, 1973.

Schmieder, Allen A. "Profile of the States in Competency-Based Education." Performance-Based Teacher Education. Vol. 3, No. 4, November, 1974, pp. 1-24.

Swanson, Gordon I. The Preparation of Vocational Teachers. Project Baseline Supplemental Report. Flagstaff, Arizona: Northern Arizona University, 1974.

Vogler, Daniel E. "Utilizing Competencies in the Development of a Baccalaureate Occupational Teacher Education Program" Journal of Industrial Teacher Education. Summer, 1975.

Appendix A

Some Institutions Engaging in Competency-Based Vocational Teacher Education

Colorado State University, Ft. Collins, Colorado--Participating in advanced testing of CVE's Professional Vocational Teacher Education Curricula.

Florida State University, Tallahassee, Florida--Participating in advanced testing of CVE's Professional Vocational Teacher Education Curricula.

Oregon State University, Corvallis, Oregon--Participated in development and preliminary testing of CVE's Professional Vocational Teacher Education Curricula.

Rutgers University, New Brunswick, New Jersey--Participating in advanced testing of CVE's Professional Vocational Teacher Education Curricula.

Savannah State University, Savannah, Georgia--Vocational Education Teacher Competencies and Procedures.

Temple University, Philadelphia, Pennsylvania--VITAL program. Participated in preliminary testing of CVE's Professional Vocational Teacher Education Curricula.

University of Georgia, Athens, Georgia--Vocational Education Teacher Competencies and Procedures.

University of Michigan, Ann Arbor, Michigan--Competency Oriented Approach to Occupational Teacher Education.

University of Missouri, Columbia, Missouri--Participated in development and preliminary testing of CVE's Professional Vocational Teacher Education Curricula.

University of Minnesota, St. Paul, Minnesota--Agricultural Education Preservice Teaching Methods is competency-based.

University of Nebraska, Lincoln, Nebraska--Preparation By Prescription for Vo-Ag Teachers.

University of Northern Colorado, Greeley, Colorado--Participating in advanced testing of CVE's Professional Vocational Teacher Education Curricula.

Virginia Polytechnic Institute and State University, Blacksburg, Virginia--CBE component in distributive education program. Focus on competency-based program for vocational teacher educators.

Wayne State University, Michigan--Pilot Competency-based Vocational Teacher Education Program.